Want Better Response Rates? Go Mobile! Best Practices for the Mobile Era

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ABSTRACT

Web surveys are an increasingly popular mode of data collection. Web surveys cost less to complete than telephone surveys, avoid the printing and postage costs of traditional mail surveys, and can yield higher response rates. Web surveys were originally designed to be completed on a computer, but with the growth of smartphones, respondents are increasingly completing web surveys using their mobile devices. Smartphones present a challenge to web survey data quality and response rates, but there are solutions. In this paper, we provide answers to two important questions when designing a web survey: (1) how to encourage customers to open an email survey invitation and complete the survey, and (2) how to adapt surveys for mobile devices so that they are easy to take and do not create additional burden for respondents.

By leveraging best practices and new technologies, we have increased the response rates of our web surveys. To illustrate how these techniques can be used in our industry, the paper provides a review of the literature on best practices as well as real world examples of how we have leveraged these practices for our clients, resulting in increased response rates, lower costs, and higher quality data.

Introduction

Web surveys are an increasingly popular mode of data collection. Web surveys cost less to complete than telephone surveys and can have higher response rates. Web surveys were originally designed to be completed on a computer, but with the growth of smartphones, respondents are increasingly completing web surveys using their mobile devices. Usage of cell phones in the United States is almost universal. Nearly every adult (90%) owns a cell phone, two-thirds (64%) of whom own a smartphone (Smith 2015). Smartphones present a challenge to web survey data quality and response rates, but there are solutions. In this paper, we provide answers to two important questions when designing a web survey: (1) how to encourage customers to open an email survey invitation and complete the survey, and (2) how to adapt surveys for mobile devices so that they are easy to take and do not create additional burden for respondents.

Survey Invitations

Researchers typically give the design of the survey instrument much more attention than the invitation to complete the survey. A well-designed survey is critical to data quality, but the design will not matter if the invitation fails to encourage respondents to complete the survey. There are several methods for soliciting participation in an online survey including traditional "snail" mail, email, and telephone calls. Email invitations are the most cost-effective method for soliciting online survey participation, as there are no printing or postage costs. However, it is challenging for an email survey invitation to stand out among the numerous marketing related emails that clutter most inboxes.

The subsequent sections examine two effective ways of increasing open and click rates:

optimizing subject lines and optimizing timing.¹ We provide recommendations based on our experience conducting numerous web surveys within the energy efficiency industry and a literature review. Though there is a growing body of literature on best practices for web survey design and fielding, some topics remain understudied, such as optimal email subject lines and optimal timing to send the invitation. The email marketing industry has done more work in these areas, and we consulted this literature for information that could be applied to internet surveys.

Optimizing Subject Lines

The subject line of an email survey invitation often is the first touch point between the researcher and respondent, making it key to a successful study. The effect of optimizing a subject line can be quite large; one study that summarized multiple experiments on subject lines and found that an optimal subject line can impact both open and click rates, increasing them by an average of 9% and 11% respectively (Shivdasani 2014).² The 2012 Obama presidential campaign was well-known for the rigorous testing it did on its fundraising emails. It would test every component of the email, including the subject line, before sending the email to all campaign subscribers. Many attribute the campaign's success in raising \$690 million online to this testing (Green 2012, Madrigal 2012).

We examined the literature on optimizing subject lines, and below we present the key findings as they relate to increasing participation in surveys in the energy program evaluation field.

Straight forward. Straightforward, no-nonsense subject lines are highly effective (MailChimp 2006). The no-fluff approach can produce high open rates. We have found that simple subject lines without a large number of words work best. For surveys with program participants, mentioning the program name is also effective. We have seen completion rates as high as 73% in residential participant surveys where the program name is mentioned in the subject line.

Highly effective words and phrases. Similar sentiments can be conveyed with slightly different words, and these words have different open rates. Based on our experience with incentives at Opinion Dynamics, we have found that some customers are suspicious when we refer to the incentive as a "sweepstakes" or a "chance to win". However, when we referred to the same incentive as a "drawing" participation rates increased.

Draws the eye. Many customers are bombarded with dozens of emails every day. One way to gain attention in a crowded in-box is to have a subject line that stands out visually. Subject lines that are shorter than the subject lines around it stand out visually. One-word subject lines can be especially effective (Marrs 2014). Additionally, mobile phones have limited space, and long subject lines cannot be read on them without scrolling (Goudreau 2015).

Scarcity and time sensitivity. Using words to convey time-sensitivity can increase open rates (Marrs 2014). Studies show that "urgent" is the most effective word conveying time-sensitivity, though "breaking," "important," and "alert" also work well. However, the phrase "last chance" has a negative effect on open rates (Shivdasani 2013). For surveys with program participants, care should be taken with

¹ The open rate is the ratio of emails opened over the total emails sent. The click rate, also known as click through rates (CTR) is the ratio of customers who click on a link within an email over the total number of emails sent.

² A percentage improvement should not be confused with a percentage point improvement. If the click rate was 20% a 10% improvement would increase the click rate

²⁰¹⁵ International Energy Program Evaluation Conference, Long Beach

this approach, because while urgency and time sensitivity may be important to convey, it can easily be seen as spam or a sales pitch.

Personalization. Studies have shown that personalizing email invitations so that the email is addressed to an actual person can increase response rates (Heerwegh et al. 2005, eMarketer 2015). One study found an increase of eight percentage points, (Heerwegh 2005). Many surveys in the energy efficiency industry make use of utility customer lists that contain customer names so that is possible to personalize email invitations.

Optimizing Timing

Researchers should also think carefully about the time of day and day of the week that they send the email invitation. One study found that sending marketing emails at optimal times increases open rates by an average of 9% and click rates by an average of 23% (Shivdasani 2014). A study by the Campaign Monitor found that the best times to send an email are between 9am and 4pm (Hodgekiss 2014). Half of emails (53%) are opened during the workday, and nearly a quarter (24%) are read after work, as seen in Figure 1.



Figure 1. Percent of Emails Opened by Time of Day – Campaign Monitor

Day of the week. We have found that we get better click rates on our web surveys when we send the email invitation on Tuesdays and Wednesdays as opposed to Fridays. The difference can be as much as 13 percentage points. Using pattern recognition, MailChimp, a company that manages email marketing for business, identified the ideal day of the week to send an email to each person in their database. They found that for most people, weekdays are the best times (Foreman 2014). A recent survey that examined survey response rates by the day of the week the email invitation was sent found a difference in response rates in the short run but not in the long run. That is, the first-day response rate to email invitations sent on Mondays through Thursday was higher than those sent Friday through Sunday. However by day six, the response rates were equal (Andreasson 2015).

Additional research in this area is needed. With the increasing use of smartphones, much is changing in how and when people access their email. People may open the survey invitation during the day when they first receive it but complete the survey later if the invitation is enticing. Future research should examine not just when emails are opened but when web surveys are actually completed.

Mobile Optimization & Survey Formatting

Nearly two-thirds of Americans own a smartphone (64%), and of those, one in five (19%) rely on their smartphone for internet access because they do not have access in some other way (Smith 2015). These numbers have tremendous implications for web surveys. For a recent web survey of residential customers, 40% (1,714 out of 4,282) started the survey using their mobile devices. Even though the survey was optimized for a mobile device, 12% of those who started the survey on their mobile device did not complete it.

As more and more respondents access surveys through different platforms, it is important to customize surveys for mobile devices. A survey that performs optimally on a desktop, may be difficult to complete when accessed using a smartphone or tablet. Today's survey design technology can detect the type of device the respondent is using to complete the survey and reformat the questions specifically for that platform. Web surveys adapted for different platforms, screen sizes, and web browsers can help to increase completion rates, decrease nonresponse bias, and reduce measurement error. Since instituting the best practices for mobile devices described below, our web survey response rates have increased by an average of ten percentage points, from 22% to 32%.

Scale questions

Scale questions are a common type of survey question used in the energy industry. On a desktop, a scale question is easy to read when it is positioned horizontally, as shown in Figure 2.

How satisfied are you with your experience overall?



Figure 2. Web Scale Example

However, on mobile phones, a horizontally positioned scale like the one in Figure 2 above may require horizontal scrolling. Since most mobile devices more easily scroll vertically than horizontally, a vertically positioned scale makes for a better user experience on mobile devices (see Figure 3). This reduces the need for manual formatting by the user, such as zooming in or out.

How satisfied are you with your experience overall?				
l - Very dissatisfied				
2				
3				
4				
5				
6				
7 - Very satisfied				

Figure 3. Web Scale Example on Smartphone

Grid questions

Scale questions displayed as grids can also be optimized for mobile users. Grids are effective for answering a series of questions on a similar scale and they standardize the answering process. Optimized grids should make it easy for respondents to answer without overlooking questions. Concise question wording and limiting the number of questions per grid to no more than three enhances the respondent's experience (Dillman, Smyth, and Christian 2014). Figure 4 is an example of a traditional grid optimized for a desktop.

In the next year, how likely are you to each of the following?

	1 - Not at all likely	2	3	4	5 - Extremely likely
Buy CFL bulbs					
Buy LED bulbs	0	\odot	\bigcirc	\odot	0
Buy Halogen bulbs	0	\bigcirc	\bigcirc		

Figure 4. Grid Example

On a mobile device, however, the same grid would be presented differently. As before, the optimal grid for mobile devices is designed vertically, as shown in Figure 5.

In the next year, how likely are you to each of the following?		
Buy CFL bulbs		
1 - Not at all likely		
2		
3		
4		
5 - Extremely likely		
Buy LED bulbs		
1 - Not at all likely		
2		
3		
4		
5 - Extremely likely		
Buy Halogen bulbs		
1 - Not at all likely		
2		
3		
4		
5 - Extremely likely		

Figure 5. Grid Example on Smartphone

Additional Best Practices For Survey Design

For surveys on mobile devices, it is best to include multiple questions pertaining to the same topic on a single page. Follow up questions based on a previous question should be presented on the same page, where possible, as it keeps the information fresh in the respondents mind. These tips can be executed using basic programmed skip logic that shows and hide questions once the respondent selects their response. When selecting a given option, follow-up questions can appear on the screen based on the skip patterns. If the respondent switches their response, the follow up question will disappear. An example of this is shown in Figure 6 below. Initially, only one question is originally shown asking about use of LED light bulbs. In the picture on the left, when "yes" is selected, the follow up question is presented asking if the respondent would recommend the bulbs to others. If the respondent changes her mind about the first question and changes her answer to "no", the follow up question disappears.

Did you use the LED bulbs?	
• Yes	
No	
Would you recommend LED bulbs to your friends or coworkers?	Did you use the LED bulbs?
Yes	Yes
No	O No

Figure 6. Skip Logic Sequence Examples

Keeping the respondent engaged is an important and challenging task due to distractions and interruptions, such as responding to a pressing email, or talking with friends. The respondent must read the question text, response options, and any instructions to accurately process the question. Shortening the respondents' processing time is best achieved with consistency in both question design and formatting (Dillman, Smyth, and Christian 2014). Questions and responses should be clearly distinct, such as bolding and increasing the font size of the question text while keeping the responses unformatted. This way, the distinction between the question and response is clear. The background colors, text font, and text color are all elements that should be consistent when appropriate. When using pictures, it is important that they are not distracting or overwhelming. On mobile devices, images should be automatically scaled to fit the viewing screen. On a desktop and laptop, the logo should also proportionate to the screen. These visual best practices minimize the need for respondents to shrink scroll the screen, such as bringing two fingers together to manipulate screen size.

Allowing respondents to close out of the survey and pick up from wherever they left off, without their previous data being lost, increases survey completion rates and shows that the surveyors are responsive to the respondents needs. With longer surveys, it is particularly important to allow respondents to move backwards in order to recall the context of the questions they are answering (Dillman, Smyth, and Christian 2014). Current survey programming technology allows surveyors to do just this by sending respondents to go backwards in the survey, respondents can refresh their memories about the subject matter and the context of subsequent questions without erasing the responses in preceding questions (Dillman, Smyth, and Christian 2014).

The impact of progress bars on survey completion rates depends on the length of the survey. For longer surveys, research generally shows that including a progress bar discourages respondents and should not be included. However, if the survey is very short and simple, including a progress bar can encourage as it shows respondents how quickly they are progressing through the survey (Dillman, Smyth, and Christian 2014).

Conclusion

The energy efficiency industry is increasingly conducting surveys online as telephone survey response rates have fallen and costs have increased. In this paper, we have provided recommendations that will increase the effectiveness of web surveys by optimizing the subject lines of email survey invitations, sending email invitations on the days of the week and times of day when respondents are

most likely to see the email and complete the survey, and using survey software that automatically reformats the survey for mobile devices. We recommend that email subject lines be straightforward and avoid the appearance of spam. We also recommend sending the email invitation mid-day and mid-week, especially if the target audience is a commercial population. With increasing numbers of respondents completing surveys using their mobile device, it is important to format questions such as grids and scales for these devices to maintain response rates and reduce measurement error.

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